IN THE CLAIMS:

We claim:

1. An immunoliposome, comprising:

a plurality of nucleic acid oligomers having identical sequences selected to correspond to a target antigen, an encapsulating liposome, and receptors coupled to said liposome where said receptors are selected to bind with said target antigen.

2. The immunoliposome of claim 1 where the liposome is a spherical bilayer membrane defining an inner surface and an outer surface and the receptor is an antibody (or other specific receptor) which is covalently or noncovalently bound to the outer surface of the liposomal bilayer.

3. The immunoliposome method of claim 2 where the liposome contains from 50-1000 copies of said selected nucleic acid oligomers.

4. A method for immunoliposome-nucleic acid amplification assay, comprising the steps of:

a) encapsulating a plurality of identical nucleic acid segments within liposomal bilayers;

b) associating selected receptors to said liposomal bilayers;

c) exposing said selected receptors to target analyte which bind to said liposomal bilayer associated selected receptors;

d) removing unbound liposomal bilayers;

e) lysing said bound liposomal bilayers to release said nucleic acid segments;

f) amplifying said released nucleic acid segments; and

g) detecting the released nucleic acids.

5. The method of claim 4 where the target analyte are antigens and further comprising the step of immobilizing the target antigens on a substrate.

6. The method of claim 5 where substrate is a microtiter plate and the receptors are antibodies specific to said immobilized target antigen.

7. The method of claim 4 further comprising the step of indirectly binding the analyte to a substrate.

8. The method of claim 7 where the receptors are gangliosides incorporated into the liposomal bilayer and the analyte is an antigen.

9. The method of claim 4 where the nucleic acid segments are amplicons that are amplified using polymerase chain reaction (PCR).

10. The method of claim 9 including the step of quantifying the amount of analyte present.

11. The method of claim 10 where the analyte is selected from the group consisting of antigens, biological toxins, bacteria, viruses, chemical warfare agents, poisons, explosives, and trace forensic evidence.

12. An immunoliposome-nucleic acid amplification assay method comprising the steps of:

selecting a substrate having primary antibodies attached thereto,

exposing the substrate to a target analyte-containing sample,

permitting the target analyte to bind to the primary antibodies attached to the substrate,

removing all unbound analyte,

exposing said bound analyte to immunoliposomes containing amplicons where the immunoliposomes couple with the analtye,

removing any uncoupled immunoliposomes,

rupturing said coupled immunoliposomes to releasing the amplicons,

amplifying the amplicon population using PCR, and

detecting the amplicons representative of the target analyte.

13. The method of claim 12 further comprising the steps of attaching the primary antibodies to the substrate and removing all unattached primary antibodies.

14. The method of claim 13 where the analyte is a bio-toxin, where the immunoliposomes are ruptured using detergent, and the amplicons are quantified using gel electrphoresis.

15. The method of forming an immunoliposome comprising the steps of:

forming small unilamellar vesicles,

mixing the vesicles with a amplicons constituting sequences of up to 100 nucleic acids to form a lipid complex;

suspending said lipid complex , and

separating the resulting liposomes from the lipid complex by centrifugation.